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ABSTRACT

Financial strategies, plans to increase return--and risk--up to the point (but not beyond) where the protection of core activities may begin to break down, are addressed. The stages for developing a financial strategy are: (1) formulate and examine academic program, research, and marketing strategies; (2) define core activities necessary to maintain the institution with its academic, research, and marketing strategies; (3) measure the levels of risk created by these internal, nonfinancial strategies and by external forces; (4) measure the levels of buffers like financial reserves available to protect core activities from risk; and (5) trade off the requirements to increase buffers against the need for additional nonfinancial resources necessary to accomplish core strategies. The role of the financial manager is one of monitoring risk and resource levels and participating in the trade off between the need to build buffers and the need to build other resources. With the prospect of increasing financial stringency in U.S. institutions of higher education has come the necessity of acknowledging changing levels of risk. Financial management must be better integrated into strategic planning for institutions of higher education to be able to cope with the uncertainties of the 1980s. The risks that an institution faces are changing constantly, and financial strategies that were once appropriate may no longer be best for achieving goals while minimizing threat to core activities. Institutions must monitor financial and nonfinancial resources and three aspects of risk: expectations, preparation, and tolerance. (SW)

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Balancing Risks and Resources: Financial Strategies for Colleges and Universities

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by NATHAN DICKMEYER

To those familiar with industrial finance, risk is well understood in terms of the dependence of sales on economic cycles and the use of debt in financing. Corporate financial strategies generally are predicated on a balance between financial risk and corporate resources in terms of technical expertise, market dominance, and patent protection. For that reason the utilities industry, for example, balances the high risk exposure of heavy debt financing with the low risk of their monopolized sales markets.

In the nonprofit sector the concept of risk for use in developing financial strategies is poorly understood. An explicit acknowledgment of risk rarely is presented in the strategies of nonprofit institutions. In the higher education sector, financial strategies themselves are rarely made explicit. Tactics like investment policies or tuition increases are well discussed and often carefully researched, but rarely does an institution build strategic options and styles within a conceptual framework that acknowledges changing levels of risk.

Some evidence of this lack of integration between financial management and strategic planning can be found in the limited role of college and university controllers. In a 1980 survey of 291 university controllers published in *Management Accounting*, D. E. Giacomino found that university chief financial accounting officers were rarely involved in planning.

> "The controller's role in higher education institutions appears strongly oriented toward control with little participation in planning.
>
> "Data related to experience, education, and certification indicate that university controllers possess a reasonably high degree of ability in financial accounting. Given their abilities and limited involvement in planning and decision making, university controllers appear to be under-used."

Without denigrating the central importance of the control function, the following paragraphs are intended to lay a basis for the participation of chief accounting and financial officers in the planning process. The purpose of their participation in planning is to help integrate financial strategies with academic and marketing strategies, and the intent of this article is to assist financial officers in articulating financial strategies that recognize the need for financial resources as buffers against the risk of detrimental financial fluctuations.

Financial officers, even those with the proper skills, are under-used in planning because the connection between financial management and planning has not been made clear. That is, strategic options have not been defined, and a thorough analysis of important variables like risk and institutional resources has not been undertaken.

Strategies, Risks, and Resources

Financial Management. Financial management includes the making of decisions and policies that govern collecting of revenues, setting of fees, allocating revenues, investing resources, and controlling cash flow. Viewed separately, each of these decision areas requires either optimization or the application of institutional values and priorities. Tuition can be set at a level that maximizes revenues; revenues can be allocated according to the value systems of the allocators (with the usual bargaining and trading inevitable in allocations of scarce resources).

The decisions in each of the financial management areas are not independent, however. Revenue and investment decisions affect the total volume and steadiness of financial inflows. A decision in one area, like the setting of tuition rates, can affect the volume of funds available in other decision areas, like allocations to instruction, and can affect the timing and predictability of that volume.

Some decisions are riskier but offer higher potential returns. Investing endowment funds in stocks rather than bonds, more liberal tenure policies, and student recruitment policies that expand the targeted area can all offer greater returns along with greater risks. The role of financial management is to report risk and resource trends and to assist in developing institutional strategies that will fulfill goals.

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Strategic Planning. Strategic plans provide the context for the sets of decisions that bring the institution closer to fulfilling long-range goals. The strategies implied in the term "strategic planning" refer to conscious attempts to redefine or to "move" the institution. In fulfillment of goals, these strategies can aim at the development of new clients, new programs, or new budget priorities. Likewise, financial strategies must answer questions about what the institution will look like financially in five to ten years or more. How will it be raising revenues? How will it be setting fees? How will it allocate funds? How will it invest?

Financial strategies must reflect the goals and strategies that govern other sets of decisions. A full strategic plan for a college or university includes marketing and academic program strategies. Marketing strategies describe who will be served and how they will be reached. Academic program strategies describe the content, structure, and priorities of developing course offerings, majors, and departments. For most colleges and universities, the plans for the academic program have the highest priority and to a large extent dominate the strategies formulated in other areas. Academic strategies in the broadest sense range from strategies to excel to strategies to survive. For example, one strategy might include a design to attract better-prepared students, that is, to "move up" in the market. Another strategy might be to improve overall reputation by excelling in research contract acquisition. Other institutions have formulated explicit survival strategies by decreasing their reliance on endowment income while increasing student-to-faculty ratios.

Risk. Douglas Collier and Cathleen Patrick in *A Multivariate Approach to the Analysis of Institutional Financial Condition* (1978) define risk as "the potential for financial difficulties which is inherent either in the institution's capital structure or in the way it carries out its operations." They suggest that measures of risk include the amount of debt carried by the institution and the relative endowment yield. As part of their research, Collier and Patrick also suggest several other measures that fall in the realm of risk, including measures of revenue stability and financial flexibility.

There are at least three aspects to risk. First, risk encompasses the probability that some event, usually with negative consequences, will occur. Second, the degree of risk depends on the monetary impact of the outcome. Third, nonmonetary outcomes and side effects also determine the degree of risk. As an example of all three aspects, an institution is in a position of high risk if it faces a 50 percent probability of a 20 percent enrollment decline, costing $800,000 in lost revenue and necessitating the discharge of 30 faculty.

Colleges and universities face risks in many areas. Revenue risks include enrollment fluctuations due either to falling application rates or falling acceptance rates, fluctuations in appropriation levels, fluctuations in gift levels, fluctuations in research contract levels, and fluctuations in endowment levels. For example, expenditure commitments expose the institution to risk because of the potential of fluctuations due to changes in rates charged by utility companies or changing salary demands. The chance of litigation is another risk, though a much smaller one.

Institutions also face other risks not related directly to revenues and expenditures. Research programs can yield solid results and alter the institution's reputation. Football teams with losing seasons can affect the institution's fortunes. The diversity of the student body with respect to academic preparation can widen, and this diversity can alter the burden on remedial programs and change retention rates.

Institutional Resources. The second factor that must be examined when designing an institutional financial strategy is the level and diversity of institutional resources, both financial and nonfinancial. Financial resources include liquid reserves for the payment of immediate obligations, true reserves set aside for contingencies, and endowments, which in general are not available for contingencies but which form an important part of the institution's capital structure.

Nonfinancial resources exist in the form of the institution's academic programs, faculty and staff, student services, management systems, and physical facilities.

Conceptual Framework For Financial Strategies

From the point of view of investment decision making, the basic form of a financial strategy is simply to maximize return while protecting core activities. In other words, an institution should take risks up to the point where the institution's core activities begin to be jeopardized.

An institution may deplete its reserves, tenure its faculty, and raise tuition only up to the point where a significant probability of revenue decline exists, especially when this decline would begin to impinge on core academic and administrative programs. The elements necessary for describing any institution's financial strategy are thus risk, resources, and core activities.

A definition of an institution's core activities is not easily developed, however. At a minimum, core activities include major academic programs and administrative areas. Dividing a budget between core activities and noncore activities is a major task of strategic planning. The crucial questions include: Which programs are necessary for institutional survival, and which programs, if eliminated, would change the fundamental character and mission of the institution such that its current supporters would find it unrecognizable? Many institutions may find that 90 percent of their budget is dedicated to core activities. If the activity had not been essential, they would have cut it years ago.

Apart from the difficulty of defining core activities, the short framework above suffers from a certain naiveté regarding risk. Many institutions, solely because of the economics dictated by their history and mission, currently face risks that jeopardize core activities. Their problem is not one of manipulating risks and resources but one of survival. For these institutions, this framework is less a guide for developing strategies than a description of a set of options that the institution might one day address, if conditions improve. Balancing risks and resources represents a goal toward which these institutions may work, rather than a currently operational strategy.

Taking risks while protecting core activities requires that core activities be buffered against fluctuations. The more resources that may be placed into buffers, the greater the level of risk that may be accepted without jeopardizing core activities.

Each institution, therefore, faces an investment-style dilemma: Should available revenues be used to build core activities or to buffer core activities from risk? The answer depends on the level of risk imposed by external forces (which is to some extent manipulable) and on the effectiveness of buffers in comparison to the needs for more core activity support. What then are the buffers that college and university administrators have available?

Active Buffers. Active buffers are those resources or mechanisms that absorb any unplanned detrimental fluctuations of revenues or expenditures but that require another change in revenue or expenditures. For example, institutions with potential fluctuations in enrollment may protect themselves by normally employing part-time, nontenured faculty. Expenditure reduction is easily accomplished by not rehiring these faculty following an enrollment decline.

Some institutions are able to absorb fluctuations by making core activities only a portion of their expenditures. The rest is sometimes called "fat." During times when a legislature, for example, is able to be generous, "fat" increases; when the legislature turns to austerity programs, "fat" is reduced. In this manner core programs are protected from fluctuations in the generosity of legislatures.

Other institutions build up protection from fluctuations by adding programs with the probability of a limited life cycle. These programs may be part of the "core" during their early years but may be eliminated should austerity occur. Extensive psychological counseling services were very prevalent on college campuses during the 1960s. Many campuses have now eliminated these services as financial stringency has increased and demand for such services has decreased. Core activities have been protected by these buffers, although their origination had nothing to do with buffering.

Finally, many institutions have successfully buffered core activities from revenue decline in one area by increasing revenues in other areas. Falling endowment yields have caused institutions to seek more students and charge higher tuitions. As independent institutions have reached the limit of tuition and student increases, fund-raising campaigns have been launched. Many public institutions facing uncertain appropriations have also begun capital campaigns for items they consider to be part of their core activities.

Passive Buffers. Passive buffers are those resources or mechanisms that can be used to protect core activities from fluctuation (including elimination) without requiring expenditure reduction or revenue increase. The most common passive buffer is a reserve for contingencies. If revenues decline or expenditures increase, this reserve may be tapped to supplement available revenues.

The decision whether to apply an unexpected gift to current needs or to place it in a reserve like the quasi-endowment is governed by the institution's financial strategy. The quasi-endowment becomes an important potential passive buffer.

Another related method of temporarily buffering core activities is to borrow funds. In many ways this mechanism is similar to the use of reserves. Financial reserves often earn interest and dividends, and their loss affects the revenue-raising abilities of the institution. Likewise, borrowing funds requires the payment of interest, which prevents a portion of revenue from being distributed to other activities.

Borrowing funds and tapping reserves both require adequate preparation in the form of securing credit or building reserves. In either case, the necessity of substantial expenditure reductions or revenue increases is postponed.

Because gift revenues are always uncertain, another form of buffer may be used. An institution can rarely know in advance how much it will receive in gifts in any year. Some institutions have reduced the risk of an unexpected decline in gift revenue by not budgeting these revenues until the year after they are received.

Endowments offer the same uncertainty. Stanford University has experimented with endowment payout rules that, while not providing the same level of support each year (to do so would occasionally require the liquidation of principal in years in which total return is low), provide a level of support that does not fluctuate as strongly as does the total return on the endowment portfolio.

Finally, a very common passive buffer is conservatism. Revenues are budgeted at lower levels than are actually expected; expenditures are budgeted at rates slightly above expected costs. The unbudgeted revenue and the unexpended portion of expenditure budgets, when they materialize, become available either for noncore activities or to build financial reserves. In years in which revenues fall or expenditures jump, conservative budgeting provides a cushion to protect core activities.

The contrast between active and passive buffer is one of control versus conservatism. The active buffers require the analysis of expenditure and revenue patterns. Active buffers require that expenditures be carefully monitored and that budget systems be in place with sanctions available to thwart overruns. Passive buffers require only that certain funds be unspent for varying lengths of time. Certainly some control is necessary with passive buffers in order to make these funds available in the first place, but the style of budgeting necessary to create reserves is far different from the style necessary to effect immediate expenditure reductions.

Implications for Analysis

The development of financial strategies requires the careful and continued monitoring of risks and resources. The risks that an institution faces are changing constantly, and financial strategies that were once appropriate may no longer be best for achieving goals while minimizing threat to core activities. Survival requires that appropriate buffering levels be maintained for existing levels of risk; yet, risk levels vary with the strategies chosen to provide resources to core activities. Institutions must monitor financial and nonfinancial resources and three aspects of risk: risk expectations, risk preparation, and risk tolerance.

Resources. Institutions must maintain information on trends in resource levels. The proportion of financial reserves to the total budget tells the institution the amount of funds available should revenues decline relative to the need for those revenues. As the budget increases, larger reserves may become necessary.

The decision to allocate more funds to financial reserves depends on an analysis of the adequacy of core activity resources. Student-to-faculty ratios, faculty salary levels, the condition of buildings, and retention rates of students all need to be monitored to help formulate the potential availability of revenues for use in building financial reserves. While increasing risk may indicate the need for greater investment in financial reserves, declining retention rates may dictate that more available resources should be allocated to student services. An assessment of the needs for resources to fulfill academic strategies must be traded off against the need for building buffers against risk.

Risk Expectation. Risk expectation includes measures of the external (to the institution) determinants of risk. What is the probability of an enrollment decline? What is the probability of various endowment return rates? (One institution has built financial strategies around the expectation of a median total endowment return level of 11 percent with a standard deviation of 25 percent!) How large

have been the historic fluctuations in gift receipts? Are certain expenditure contingencies predictable?

Risk Preparation. Risk preparation refers to the institutional preparation for fluctuation, i.e., the adequacy of various buffers. At what level are financial reserves? How much borrowing has the institution undertaken? How flexible is the institution's expenditure structure? What is the number of tenured faculty? Of part-time faculty? What proportion of the total budget must be regarded as dedicated to core activities? What revenue increase options remain?

Risk Tolerance. Risk tolerance refers to the institution's attitude toward the possible deterioration of core activities. Administrators are willing to tolerate differing amounts of jeopardy toward core activities depending on personality, institutional history, and mission. For some institutions, a narrow mission and a long history require that core activities be well protected. Other, perhaps newer, institutions may be in a better position to risk curtailment of some core activities without severely undermining the institution. The traditions of Harvard are very different from those of a community college. One of the comments heard most often on community college campuses is that their administrators tolerate high levels of risk; they are willing to take chances with new programs and new students. While monitoring institutional attitudes toward risk is relatively difficult, little more than a general understanding of the institutional risk profile is necessary for developing financial strategies.

In a project cosponsored by NACUBO and the American Council on Education, a workbook was developed to assist administrators in the development and understanding of financial trends. *Self-Assessment of the Financial Condition of Colleges* (1980), the workbook by Dickmeyer and Hughes, focuses on the analysis of financial strategies and is intended to give the user an understanding of the institutional balance between risks and resources. The workbook assists in monitoring five areas: financial resources, nonfinancial resources, flexibility, revenues, and expenditures.

Strategies in the Face of Changing Levels of Risk

Building Buffers. This suggestion is obvious following the discussion above. The basis for a decision to build buffers is less obvious. Justifying each method of building buffers requires that the probable impact of a significant revenue decline or expenditure increase be greater than the needs of current core activities. Should funds be invested in programs or buffers? Have the effectiveness of buffers declined? Would the payoff from investments in core activities be sufficient that the buildup of buffers can be temporarily neglected?

Choosing among various buffers also resembles an investment decision. Financial reserves earn additional revenue and are usually sufficiently liquid to be available as needed. Building up "fat" to use for increased staff travel for professional development will probably be intrinsically beneficial to the institution. Clearly, funds could be "invested" in either manner. Would the benefits of increased professional development be worth the trauma of cutting these benefits during a revenue decline? The use and choice of buffers thus rests on a standard investment theory framework, except that many of the payoffs are nonmonetary.

In order to justify investment in any buffer, the probability times the cost of a traumatic budgetary event that could be mitigated by the buffer must exceed the value of investing the funds in a core activity. This assessment requires difficult value comparisons, but similar trade-offs are the standard fare of college and university administrators.

Reducing Exposure by Diversification. In a sense, diversification is a variation of increasing buffers. Institutions may improve their risk exposure by lessening their dependence on single sources of income. Public institutions may seek greater levels of annual gift support. Independent institutions may invest endowment in land or commercial ventures. More and more, institutions are diversifying by seeking greater research funding. Institutions are also opening new divisions, seeking broader age distributions of clientele, and opening new degree programs.

Reducing Exposure by Increasing Flexibility. A reduction in long-term commitments increases the institution's ability to use active buffers. Institutions are replacing tenure agreements with five-year contracts for new faculty. Some institutions are seeking a greater reliance on part-time faculty. Construction has been reduced on college campuses, allowing the future possibility of a reduction in debt service commitments.

Summary

Financial strategies have been presented as plans to increase return (and hence risk) up to the point (but not beyond) where the protection of core activities may begin to break down. The stages for developing a financial strategy are: (1) formulate and examine academic program, research, and marketing strategies; (2) define core activities necessary to maintain the institution with its academic, research, and marketing strategies; (3) measure the levels of risk created by these internal, nonfinancial strategies and by external forces; (4) measure the levels of buffers like financial reserves available to protect core activities from risk; and (5) trade off the requirements to increase buffers against the need for additional nonfinancial resources necessary to accomplish core strategies.

The role of the financial manager is one of monitoring risk and resource levels and participating in the trade off between the need to build buffers and the need to build other resources. With the prospect of increasing financial stringency in U.S. institutions of higher education has come the necessity of acknowledging changing levels of risk. Financial management must be better integrated into strategic planning for institutions of higher education to be able to cope with the uncertainties of the 1980s. ♦

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